

In response to the final Office Action mailed November 5, 2003, please amend the above-identified application as follows:

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method of screening and recovering a regulatory DNA which is not expressed as an mRNA but is capable of inducing metastasis comprising the steps of:

- i. transferring fragments of human DNA of less than 1.5 kb in length, said fragments having been tagged at both ends with double-stranded synthetic oligonucleotides that provide restriction enzyme and unique primer sites, from malignant, metastatic cancer cells, into a rat or mouse cell line that produces only benign, non-metastasizing tumours when injected into a syngeneic ~~animal~~ rat or mouse, thereby producing transformed cells;
- ii. injecting the transformed cells into ~~the~~ syngeneic ~~animal~~ rats or mice;
- iii. selecting those ~~animals~~ rats or mice in which metastasizing tumours have been identified; and
- iv. recovering the regulatory DNA capable of inducing metastasis therefrom.

2. (Previously presented) The method of claim 1 wherein said fragments of human DNA are between 1.3 and 1.5 kb in length.

3. Previously Cancelled.

4. (Previously presented) A method as in claim 1, in which the cell line that produces only benign non-metastasizing tumors is a rat mammary epithelial cell line.

5. (Previously presented) A method as ~~claimed in any of the preceding claims~~ in claim 1 wherein the fragments of human DNA are tagged.

6. (Previously presented) The method of claim 5 wherein the fragments are tagged with a double-stranded synthetic oligonucleotide, one strand whose sequence is SEQ. ID. No. 7 and the other strand whose sequence is SEQ. ID. NO. 8.

7. (Previously presented) A regulatory DNA which is not expressed as an mRNA but is capable of inducing metastasis, said regulatory DNA consisting essentially of a human DNA fragment of less than 1.5 kb in length and comprising the sequence of SEQ. ID. NO. 4, obtained from a malignant, metastasis cancer cell.

8. Previously Cancelled.

9. Previously Cancelled.

10. Previously Cancelled.

11. (Previously presented) DNA consisting essentially of a regulatory DNA which is not expressed as an mRNA but is capable of inducing metastasis and has the sequence of SEQ. ID. NO. 4.

12. Previously Cancelled.

13. Previously Cancelled.

14. Previously Cancelled.

15. (Currently amended) A probe specific to a regulatory DNA which is not expressed as an mRNA but is capable of inducing metastasis as claimed in claim 7, wherein said probe is at least 19 base pairs in length and less than 6000 base pairs in length.

16. Cancelled

17. (Previously presented) A composition comprising a DNA adapted to target a regulatory DNA which is not expressed as an mRNA but is capable of inducing metastasis as claimed in claim 7.

18. (Previously presented) A method as in claim 2, in which the cell line that produces only benign non-metastasizing tumors is a rat mammary epithelial cell line.

19. Cancelled

23. (Previously presented) A probe specific to a regulatory DNA which is not expressed as an mRNA but is capable of inducing metastasis as claimed in claim 11, wherein said probe is less than 6000 base pairs in length.

29. (Previously presented) A composition comprising a DNA adapted to target a regulatory DNA which is not expressed as an mRNA but is capable of inducing metastasis as claimed in claim 11.